


## Transforming Theory into Action



Indoor Air Quality (IAQ)

## High Performance Teams


- **Forming**
- **Storming**
- **Norming**
- **Performing**



Indoor Air Quality (IAQ)

**Team self assessment:**  
Where is your team in terms of development?

1. Forming – Just launched
2. Storming – A little rough sea
3. Norming – On course
4. Performing – On track for the America's Cup



Indoor Air Quality (IAQ)


**Which one of the following Key Drivers do you feel is most challenging for C.U.S.D 95 Lake Zurich, IL?**

*Design to Sustain Action*

1. Organize
2. Communicate

*Be In Action For Results*


3. Assess
4. Plan
5. Act
6. Evaluate



Indoor Air Quality (IAQ)

**Which one of the following Key Drivers do you feel is strongest in C.U.S.D 95 Lake Zurich, IL?**

Compare results of previous slide with slide from teams yesterday.



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**Which one of the following Key Drivers do you feel is most challenging for Memphis City Schools, TN?**

*Design to Sustain Action*

1. Organize
2. Communicate

*Be In Action For Results*


3. Assess
4. Plan
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Indoor Air Quality (IAQ)

**Which one of the following Key Drivers do you feel is strongest in Memphis City Schools, TN?**

Compare results of previous slide with slide from teams yesterday.



Indoor Air Quality (IAQ)


**Which one of the following Key Drivers do you feel is most challenging for The School District of Philadelphia?**

*Design to Sustain Action*

1. Organize
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*Be In Action For Results*


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Indoor Air Quality (IAQ)

**Which one of the following Key Drivers do you feel is strongest in The School District of Philadelphia?**

Compare results of previous slide with slide from teams yesterday.



Indoor Air Quality (IAQ)


**Which one of the following Key Drivers do you feel is most challenging for Schodack Central School District, NY?**

*Design to Sustain Action*

1. Organize
2. Communicate

*Be In Action For Results*


3. Assess
4. Plan
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6. Evaluate



Indoor Air Quality (IAQ)

**Which one of the following Key Drivers do you feel is strongest in Schodack Central School District, NY?**

Compare results of previous slide with slide from teams yesterday.



Indoor Air Quality (IAQ)


**Which one of the following Key Drivers do you feel is most challenging for Louisiana Recovery School District, LA?**

*Design to Sustain Action*

1. Organize
2. Communicate

*Be In Action For Results*


3. Assess
4. Plan
5. Act
6. Evaluate





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**Which one of the following Key Drivers do you feel is strongest in Louisiana Recovery School District, LA?**


Compare results of previous slide with slide from teams yesterday.



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**Moving From Theory to Practice:  
Implementing Technical Solutions**



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Day 2 – Installing the Best Technical Solutions

**ACTION KIT**



- ★ HVAC
- ★ Moisture/Mold
- ★ IPM
- ★ Cleaning & Maintenance
- ★ Materials Selection
- ★ Source Control



Day 1 – Morning → Day 1 – Afternoon → Day 2 → Day 3

Indoor Air Quality (IAQ)

The Framework for Effective School IAQ Management

Indoor Air Quality (IAQ)

The Framework for Effective School IAQ Management:  
**Six Technical Solutions**




Indoor Air Quality (IAQ)

The Framework for Effective School IAQ Management:  
**Six Technical Solutions**

**Quality HVAC**


- Inspect HVAC systems regularly
- Establish a maintenance plan
- Change filters regularly and ensure condensate pans are draining
- Provide outdoor air ventilation according to ASHRAE Standard or local code
- Clean air supply diffusers, return registers, and outside air intakes
- Keep unit ventilators clear of books, papers, and other items

**Control of Moisture/Mold**

- Conduct routine moisture inspections
- Establish mold prevention and remediation plan
- Maintain indoor humidity levels between 30% and 60%
- Address moisture problems promptly
- Dry wet areas within 24-48 hours

**Strong Integrated Pest Management (IPM)**

- Inspect and monitor for pests
- Establish an IPM plan
- Use spot treatments and baits
- Communicate with occupants prior to pesticide use
- Mark indoor and outdoor areas treated with pesticides



**Effective Cleaning & Maintenance**


- Conduct routine inspections of school environment
- Develop a preventative maintenance plan and use policies
- Train cleaning/maintenance staff on protocols
- Ensure material safety data sheets (MSDS) are available to staff
- Use only low-toxicity and low-emitting paint
- Clean and remove dust with damp cloth
- Vacuum using high-efficiency filters

**Smart Materials Selection**

- Maintain products inventory
- Develop low-emitting products purchasing and use policies
- Use only formaldehyde-free materials
- Use only low-toxicity and low-emitting paint
- Select products based on product rating systems
- Use least toxic cleaners possible (only those approved by the district)

**Aggressive Source Control**

- Conduct regular building walkthrough inspections
- Test for radon; mitigate if necessary
- Implement a hazardous materials plan (use, label, storage and disposal)
- Implement Smoke-Free policies
- Establish an anti-idling school bus policy
- Use walk-off mats at building entrances
- Conduct pollutant-releasing activities when school is unoccupied



Indoor Air Quality (IAQ)

## 5 Minute Mentor

Technical Solution	Faculty	IAQ Design Challenge School District
HVAC	Blue Valley	Philadelphia
Mold and Moisture	Charlotte	New Orleans
Integrated Pest Management	Charlotte	New Orleans
Cleaning and Maintenance	NEISD	Lake Zurich
Materials Selection	NEISD	Memphis
Source Control	Blue Valley	Schodack



Indoor Air Quality (IAQ)

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Indoor Air Quality (IAQ)

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Indoor Air Quality (IAQ)

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Indoor Air Quality (IAQ)

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Indoor Air Quality (IAQ)

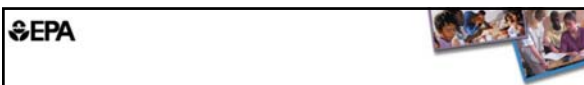
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## Developing a Solution – Team Caucus 1



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### IAQ Collaborative Design Sessions


**Day Two**  
*Developing a Solution – Team Caucus*

- Purpose:
  - After learning about the Framework: Technical Solutions convene and decide who is attending each technical breakout.
- Instructions:
  - Use the chart on Page 8 of the Guidebook to make assignments.
  - Read Backgrounder – Part 3 to prepare for Breakouts.

### Breakout Sessions


**How to Listen:**

- What are the strategies and approaches I hear for Installing this Technical Solution?
- What strategies can I recommend for my Design Challenge?
- What strategies can I use to advance my own work?




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Breakout	Room
Fresh Air: Optional HVAC Management for Improved Health	Lafayette and Farragut Square
Mold and Moisture: Double Trouble for Schools	Conference Theater
Pest Prevention: Integrated Pest Management in Schools	Independence BC
Green Cleaning: Products and Practices	Independence DE
Materials Selection: New Developments in Certified Green Products	Independence FG
Controlling Radon at the Source	Independence HI




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## 10<sup>th</sup> IAQ Tools for Schools National Symposium



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